

**FACT SHEET FOR MODIFICATION OF
KENTUCKY HAZARDOUS WASTE MANAGEMENT PERMIT**

**U.S. DEPARTMENT OF ENERGY,
PADUCAH REMEDIATION SERVICES, L.L.C.
PADUCAH GASEOUS DIFFUSION PLANT
KY8-890-008-982**

This fact sheet is prepared for the modification of the Hazardous Waste Management Permit that the Kentucky Environmental and Public Protection Cabinet reissued to the U.S. Department of Energy (DOE) Paducah Gaseous Diffusion Plant (PGDP), and Bechtel Jacobs Company LLC on September 30, 2004. This draft modification acknowledges and is consistent with a scheduled transfer of operational control of the facility from the U.S. Department of Energy (DOE) Paducah Gaseous Diffusion Plant (PGDP), and Bechtel Jacobs Company LLC to the U.S. Department of Energy (DOE) Paducah Gaseous Diffusion Plant (PGDP), and Paducah Remediation Services LLC.

I. Purpose of the Permit Modification Process

The purpose of the permit modification process is to afford the Cabinet, interested citizens, and other governmental agencies the opportunity to evaluate the ability of the Permittees to comply with the hazardous waste management regulations identified in the facility hazardous waste management as proposed in this draft modification. The Cabinet is required to prepare a draft permit modification which sets forth in one concise document all the applicable requirements with which the Permittees will be required to comply during the remainder of the ten (10) year duration of the permit. The public is given forty-five (45) days to review and comment on the draft permit modification before the Cabinet takes any final permitting action on the Hazardous Waste Management Permit.

II. Procedures for Reaching a Final Decision

The Kentucky Environmental and Public Protection Cabinet will coordinate the modification of the PGDP Hazardous Waste Management Permit. Chapter 38 of Kentucky Administrative Regulations (KAR) Title 401 requires that the public be given a forty-five (45) day comment period for each draft permit and major modification prepared under the Kentucky Revised Statutes (KRS). **The comment period will begin on February 19, 2006, the date of publication of the public notice in *The Paducah Sun*, and will end on April 4, 2006. Any person interested in commenting on the draft permit modification must do so within the forty-five (45) day comment period specified above.** All persons wishing to comment on any of the permit conditions should submit comments in writing to the Kentucky Environmental and Public Protection Cabinet at the Division of Waste Management, 14 Reilly Road, Frankfort, Kentucky 40601, Attention: April J. Webb. **A public hearing addressing the above approvals is tentatively scheduled to be held on Tuesday, March 28, 2006, starting at 7:00 PM at the Heath Middle School cafeteria, 4336 Metropolis Lake Road, West Paducah, KY, provided there is a request for a hearing. If there are no requests for a hearing by March 22, 2006, the hearing will be cancelled and a notice of cancellation will be**

published in the Sunday March 26, 2006 edition of The Paducah Sun. The public comment period will expire on April 4, 2006.

The administrative record, which includes the draft permit and related information, can be reviewed at the following locations:

1. McCracken County Public Library,
555 Washington Street
Paducah KY 42003

Point of contact:
Marie Liang, Director
(270) 442-2510

2. Department of Energy Environmental Information Center
115 Memorial Drive
Barkley Center
Paducah, KY 42001

Point of contact:
Elizabeth Austin
(270) 554-6979

3. Division of Waste Management
14 Reilly Road
Frankfort, Kentucky 40601-1190

Point of contact:
Maria Wood
(502) 564-6716
(502) 564-9232 (fax)
Email: maria.wood@ky.gov

To make an appointment, submit a written request at least 72 hours prior to the desired review date. Copying charges are 10 cents per page, and \$2 for each map and blueprint, plus state sales tax. Upon request, this information can be made available in alternative formats.

In formulating a decision on the modification of the permit, the Cabinet will consider all written comments received during the comment period. If the determinations are substantially changed from the tentative decision announced in the public notice, the Cabinet will issue a public notice indicating a revised decision and will notify the applicant and each person who has submitted written comments or has requested notice of the final permit decision.

The Kentucky Division of Waste Management (KDWM) contact person for this permit modification for the Paducah Gaseous Diffusion Plant is:

Ms. April J. Webb
Hazardous Waste Branch
14 Reilly Road
Frankfort, Kentucky 40601
(502) 564-6716
email: april.webb@ky.gov

III. Facility Description and Permit History

The Kentucky Natural Resources and Environmental Protection Cabinet, Division of Waste Management, issued a Hazardous Waste Storage and Treatment Permit to the U.S. DOE Paducah Gaseous Diffusion Plant (PGDP) and Martin Marietta Energy Systems, Inc. on August 19, 1991. Subsequent modifications were made to the permit and are detailed below.

The PGDP, constructed in 1951, is an active uranium enrichment facility consisting of a diffusion cascade and extensive support facilities. The cascade is housed in five buildings, covering approximately 75 acres. The plant is located on a reservation consisting of approximately 3422 acres in western McCracken County, about 10 miles west of Paducah, Kentucky, and about 3 miles south of the Ohio River. Roughly 750 acres of the reservation is enclosed within a fenced security area. The raw water treatment plant, residential landfill, inert landfill, and weapons firing range are the only operating areas outside of the security area. An uninhabited buffer zone of at least 400 yards surrounds the entire fenced area. This buffer zone, which consists of approximately 2080 acres, has been either deeded or leased to the Commonwealth of Kentucky.

The existing permit allows the PGDP to treat and store hazardous waste. The permit also requires the post-closure care and maintenance of an inactive/closed hazardous waste landfill.

Permit Modifications

A minor modification (#1) was issued on February 3, 1992 to correct typographical errors and to grant an interim compliance extension.

A major modification (#2) was issued on September 30, 1992 for post-closure care of the C-404 Low Level Radioactive Waste Landfill and to revise management procedures, personnel training programs, and inspection schedules.

A minor modification (#3) was effective on August 4, 1992 and includes a revision to the RCRA Facility Investigation (RFI) Workplan Schedule for several of the Waste Area Groups (WAGs) located at PGDP.

A minor modification (#4) was issued on March 11, 1993 to change the groundwater monitoring methods, frequency, and reporting dates; to add several Solid Waste Management Units (SWMUs) and WAGs; and to revise compliance schedules.

A minor modification (#5) was issued on June 30, 1993 to add the United States Enrichment Corporation (USEC) as a co-operator.

A minor modification (#6) was issued on February 1, 1994 to extend the compliance schedule for the RFI Workplans.

A major modification (#7) was issued on March 30, 1995 to allow PGDP to accept PGDP wastes that have been taken off-site for DOE environmental restoration activities, or for off-site treatment and analysis of PGDP waste; to withdraw five RCRA treatment units that were never used; to add an Environmental Restoration Waste Storage Area (Building C-752-A); to update the list of SWMUs requiring RFIs; and several other modifications.

A minor modification (#8) was issued on June 26, 1995 to incorporate Attachment IX, Appendices A and B to the permit. This Attachment describes the treatment strategy for the Northeast Plume.

A minor modification (#9) was issued on August 30, 1995 to change sampling frequency at the C-404 landfill and to accomplish administrative changes to Attachment IX.

A major modification (#10) was issued on March 4, 1996 to change the name of the Martin Marietta Energy Systems, Inc. to Lockheed Martin Energy Systems, Inc; remove USEC from the permit; approve a variance of 401 KAR 32:010, Section 1(6); grant a variance for closure of specific units under 40 CFR 268.45; and several other changes.

A minor modification (#11) was issued on May 7, 1996 to correct administrative errors and to require submittal of sampling data in both written and electronic formats.

A major modification (#12) was issued on January 17, 1997 to include changes made to the original permit through modifications #1 through #11, changes made through an Agreed Judgment for the C-404 Hazardous Waste Landfill, and several other miscellaneous changes.

A major modification (#13) was issued on September 26, 1997 to incorporate the changes as described in the Record of Decision for Waste Area Grouping 17 and to add minor items in various sections of the Permit.

A major modification (#14) was issued on April 1, 1998 to revise language in Part I - Legal

Authority and in Part II - Specific Conditions (II.A.1 and II.A.2). These revisions incorporated a name change for the co-operator of the permit from Lockheed Martin Energy System to Bechtel Jacobs LLC.

A major modification (#15) was issued on July 20, 1999 to address treatment in containers at the C-752-A Environmental Restoration Waste Storage Facility and the C-746-Q Hazardous Waste Storage Area. The modification also incorporated the corrective action decisions for the Interim Remedial Actions for Waste Area Groups (WAGs) 1 & 7 and SWMU # 91.

On September 30, 2004 the Hazardous Waste Management Permit was reissued to the Department of Energy and Bechtel Jacobs Company LLC. The permit reissuance updated the compliance schedules in the permit to be consistent with the latest cleanup schedules agreed to by the parties of the Federal Facilities Agreement. The reissued permit also executed the following changes to the facility hazardous waste permit.

- Updated the permit to include 340 areas where wastes have been managed or areas of possible contamination (*i.e.*, newly identified Solid Waste Management Units and/or Areas of Concern). These are units 212-551.
- Updated the permit attachments to include the permit application for reissuance, originally submitted on February 21, 2001 and subsequently revised on February 25, 2002 and April 13, 2004.
- Updated the format of the permit as a result of the Department for Environmental Protection's implementation of new regulatory database software used for permit writing.
- Updated the permit to allow additional treatment (macroencapsulation and compaction) in permitted areas of the facility.
- Updated the permit to allow treatment by adsorption and decanting in additional areas of the facility.
- Updated the permit to include DOE Material Storage Areas (DMSAs) where newly discovered hazardous wastes were found to be stored without a permit during the characterization of these areas.
- Updated the permit to allow for changes in interim dates in the compliance schedule to proceed as minor modifications to the permit.

- Updated the permit to include definitions of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) terms. These terms are used in the Schedule of Compliance and their equivalence with Resource Conservation and Recovery Act (RCRA) terms are explained in the permit.

IV. Explanation and Organization of this Draft Permit Modification which is proposed as Modification #1 to the September 30, 2004 Reissued Permit

- Updates Part I of the Permit (Condition T-1) to reflect the scheduled change of facility operator from the US Department of Energy and Bechtel Jacobs Company LLC to the US Department of Energy and Paducah Remediation Services. Provides replacement pages for various attachments to the permit to also reflect this change.
- Updates Part II of the Permit (Condition T-24) to include additional waste codes to provide for consistency with the application and the intent of the permit (i.e. corrects the unintentional omission of waste codes in the permit reissued on September 30, 2004).